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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,778

Applicant(s)

EPSTEIN, MICHAEL A.

Examiner

Rebecca L. Pachura

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 13-17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 4, 12 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. The claim for priority from US provisional application # 60414944 for 09/30/2002 is duly noted. The examiner appreciates the applicant's patience there was a mistake in the database.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

The mailing address for Frederic Grumiaux on the amended Oath is Rue Francois Vekemans 121, Brussels, NY, 1120, Belgium. The examiner doesn't think there is a state of NY in Belgium.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 3, 4, 6, 7, 9, 10, 11, 12 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 3, 4, 5, 8, 9, 11, 12, 13, 14 of copending Application No. 10529353 in view of “TCP/IP Illustrated, vol. 1, The Protocols” (Stevens) (Applicant’s IDS). It would be obvious to one of ordinary skill in the art at the time of the applicant’s invention that processing the time required

to generate a response is another way to verify the target and its response. This is a provisional obviousness-type double patenting rejection.

Status of Claims

4. **Claims 1-21 are pending in this Office Action.**

Response to Arguments

5. Applicant's arguments with respect to claims 1-3, 5-11, 13-17, and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's Invention as claimed:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-3, 5-11, 13-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over “TCP/IP Illustrated, vol. 1, The Protocols” (Stevens) (Applicant's IDS) in view of US 6446028 (Wang), in view of US 6363477 (Fletcher), and in view of “Using Encryption for Authentication in Large Networks of Computers” (Needham).**

As to claim 1, (Original) Stevens discloses a method of determining proximity of a target node to a source node, comprising: communicating a query from the source node to the target

node, communicating a response from the target node to the source node (Stevens page 2, paragraph 4). Stevens fails to teach the response from the target node including a measure of processing time required to generate the response based on the query.

However, Fletcher discloses the response from the target node including a measure of processing time required to generate the response based on the query (Fletcher Figure 11, blocks 1110-1130).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Stevens and Fletcher because returning the processing time allows the system to keep track of valuable metrics for further processing (Fletcher Figure 11, blocks 1110-1130).

The modified Stevens discloses receiving the response at the source node, determining a measure of query-response time between communicating the query and receiving the response (Stevens page 2, paragraph 6 and page 3, paragraph 1) and determining the proximity of the target node based on a communication time that depends upon a difference between the measure of query-response time and the measure of processing time (Stevens page 2, paragraph 4).

As to claim 2, (Original) the modified Stevens discloses the method of claim 1. The modified Stevens fails to teach wherein the query and response correspond to at least a portion of a cryptographic key-exchange protocol.

However, Needham discloses wherein the query and response correspond to at least a portion of a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that this Needham-Schroeder key-exchange protocol is a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 3, (Original) the modified Stevens discloses the method of claim 2, wherein the key-exchange protocol corresponds to a Needham-Schroeder key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 5, (Original) the modified Stevens discloses the method of claim 1, wherein the measure of processing time at the target node is predefined (Stevens page 2, paragraph 4).

As to claim 6, (Original) the modified Stevens discloses the method of claim 1, wherein determining the proximity includes comparing the communication time to a threshold value that distinguishes between local and remote nodes (Stevens page 2, paragraph 4).

As to claim 7, (Original) the modified Stevens discloses the method of claim 1, further including restricting communications with the target node based on the proximity (Stevens page 2, paragraph 4).

As to claim 8, (Original) the modified Stevens discloses the method of claim 1. The modified Stevens fails to teach wherein the response is cryptographically signed by the target node.

However, Needham discloses wherein the response is cryptographically signed by the target node (Needham page 998, paragraph 1).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that digital signatures can be used to authenticate both target and source (Needham page 998, paragraph 1).

As to claim 9, (Original) Wang discloses a node on a network including: a communication device that is configured to receive a query from a source node and to transmit a corresponding response to the source node, a processor that is configured to process the query and produce therefrom the response (Wang Figure 6). Wang fails to teach wherein the response includes a measure of processing time required to process the query and produce the response.

However, Fletcher discloses the response from the target node including a measure of processing time required to generate the response based on the query (Fletcher Figure 11, blocks 1110-1130).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Wang and Fletcher because returning the processing time allows the system to keep track of valuable metrics for further processing (Fletcher Figure 11, blocks 1110-1130).

As to claim 10, (Original) the modified Wang discloses the node of claim 9. Wang fails to teach wherein the processor is configured to process the query and produce the response as part of a cryptographic key-exchange protocol.

However, Needham discloses wherein the processor is configured to process the query and produce the response as part of a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that this Needham-Schroeder key-exchange protocol is a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 11, (Original) the modified Wang discloses the node of claim 10, wherein the key-exchange protocol corresponds to a Needham-Schroeder key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 13, (Original) the modified Wang discloses the node of claim 9. Wang fails to teach wherein the measure of processing time is predefined.

However, Stevens discloses wherein the measure of processing time is predefined (Stevens page 2, paragraph 4).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Wang and Stevens because Wang gives more details for the monitoring and calculating then Stevens does (Stevens page 2, paragraph 4).

As to claim 14, (Original) the modified Wang discloses the node of claim 9. Wang fails to teach wherein the processor is further configured to cryptographically sign the response.

However, Needham discloses wherein the processor is further configured to cryptographically sign the response (Needham page 998, paragraph 1).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that digital signatures can be used to authenticate both target and source (Needham page 998, paragraph 1).

As to claim 15, (Original) Wang discloses a node on a network including: a communication device that is configured to transmit a query to a target node and to receive a corresponding response from the target node. Wang fails to teach the response from the target node including a measure of processing time required to generate the response at the target node.

However, Fletcher discloses the response from the target node including a measure of processing time required to generate the response based on the query (Fletcher Figure 11, blocks 1110-1130).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Stevens and Fletcher because returning the processing time allows the system to keep track of valuable metrics for further processing (Fletcher Figure 11, blocks 1110-1130).

The modified Wang discloses and a processor that is configured to: generate the query, receive the response, measure a query-response time between generating the query and receiving the response (Wang abstract). The modified Wang fails to teach and determine a proximity of the target node relative to the node based on a communication time that is dependent upon a difference between the query-response time and the measure of processing time.

However, Stevens discloses and determine a proximity of the target node relative to the node based on a communication time that is dependent upon a difference between the query-response time and the measure of processing time (Stevens page 2, paragraph 4).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention because Wang calculates the details whereas Stevens just says "calculate", so Wang fills in those details (Stevens page 2, paragraph 4).

As to claim 16, (Original) the modified Wang discloses the node of claim 15. The modified Wang fails to teach wherein the processor is configured to generate the query and receive the response as part of a cryptographic key-exchange protocol.

However, Needham discloses wherein the processor is configured to generate the query and receive the response as part of a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that this Needham-Schroeder key-exchange protocol is a cryptographic key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 17, (Original) the modified Wang discloses the node of claim 16, wherein the key-exchange protocol corresponds to a Needham-Schroeder key-exchange protocol (Needham page 995, column 1, paragraph 2-4 and column 2, paragraph 1).

As to claim 19, (Original) the modified Wang discloses the node of claim 15. The modified Wang fails to teach wherein the measure of processing time is predefined.

However, Stevens discloses wherein the measure of processing time is predefined (Stevens page 2, paragraph 4).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the modified Wang and Stevens because the modified Wang gives more details for the monitoring and calculating than Stevens does (Stevens page 2, paragraph 4).

As to claim 20, (Original) the modified Wang discloses the node of claim 15. The modified Wang fails to disclose wherein the processor is configured to determine the proximity based on a comparison of the communication time to a threshold value that distinguishes between local and remote nodes.

However, Stevens discloses wherein the processor is configured to determine the proximity based on a comparison of the communication time to a threshold value that distinguishes between local and remote nodes (Stevens page 2, paragraph 4).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the modified Wang and Stevens because the modified Wang gives more details for the monitoring and calculating than Stevens does (Stevens page 2, paragraph 4).

As to claim 21, (Original) the modified Wang discloses the node of claim 15. The modified Wang fails to teach wherein the processor is further configured to control subsequent communications with the target node based on the proximity.

However, Stevens discloses wherein the processor is further configured to control subsequent communications with the target node based on the proximity (Stevens page 2, paragraph 4).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention that Stevens waiting for a reply, and if no answer occurs in 20 seconds, timing out is a way to control the communications with the target node based on its proximity (Stevens page 2, paragraph 4).

Allowable Subject Matter

7. Claims 4, 12, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the applicant requires the use of the OCPS protocol in these limitations. This protocol was authored by the applicant less than one year from the filing date of this application.

Remarks

8. Applicant has made arguments for the response, see below.

The Applicant Argues:

The Office action provisionally rejects claims 1-4, 6-7, and 9-12 for double patenting over claims of U.S. Patent Application 10/529,353 (hereinafter '353) in view of Stevens ("TCP/IP Illustrated, vol. 1, The Protocols"). The applicants respectfully traverse this rejection.

Neither '353 nor Stevens teaches or suggests communicating a response from a target node to a source node that includes a measure of processing time required to generate the response based on a received query, as specifically claimed in independent claims 1 and 9, upon which claims 2-8 and 10-14 depend.

Also, neither '353 nor Stevens teaches or suggests receiving a response from a target node that includes a measure of processing time required to generate the response based on a received query and determining the proximity of the target node based on a communication time that depends upon a difference between the measure of query-response time and the measure of processing time, as also specifically claimed in independent claim 1.

Because the combination of '353 and Stevens fails to teach or suggest each of the elements of each of the applicants' independent claims, the applicants respectfully request the

Examiner's reconsideration of the provisional rejection of claims 1-4, 6-7, and 9-12 over '353 and Stevens.

In response, the examiner respectfully submits:

That the claims are nearly identical in wording and therefore qualify as double patenting. Therefore the examiner maintains her double patenting rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca L. Pachura whose telephone number is (571) 270-3402. The examiner can normally be reached on Monday-Thursday 10:00 am-8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rebecca L Pachura/
Examiner, Art Unit 2136

Art Unit: 2136

/Nasser G Moazzami/

Supervisory Patent Examiner, Art Unit 2136